PC190
Document Camera

User Manual

[Important]

To download the latest version of Quick Start Guide, multilingual user manual, software, or driver, etc., please visit Lumens
http://www.lumens.com.tw/goto.htm

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Chapter 1 Safety Instructions

Always follow these safety instructions when setting up and using the Document Camera:

1. Do not place Document Camera in tilted position.
2. Do not place the Document Camera on an unstable trolley, stand or table.
3. Do not use the Document Camera near water or source of heat.
4. Use attachments only as recommended.
5. Use the type of power source indicated on the Document Camera. If you are not sure of the type of power available, consult your dealer or local electricity company for advice.
6. Place the Document Camera on a place that it can be unplugged easily.
7. Always take the following precautions when handling the plug. Failure to do so may result in sparks or fire.
   - Ensure the plug is free of dust before inserting it into a socket.
   - Ensure that the plug is inserted into the socket securely.
8. Do not overload wall sockets, extensions leads or multi-way plug boards as this may cause fire or electric shock.
9. Do not place the Document Camera where the cord can be stepped on as this may result in fraying or damage to the lead or the plug.
10. Unplug the Document Camera from the wall socket before cleaning. Use a damp cloth for cleaning. Do not use liquid or aerosol cleaners.
11. Do not block the slots and openings in the Document Camera case. They provide ventilation and prevent the Document Camera from overheating. Do not place the Document Camera on a sofa, rug or other soft surface or in a built-in installation unless proper ventilation is provided.
12. Never push objects of any kind through cabinet slots. Never allow liquid of any kind to spill into the Document Camera.
13. Except as specifically instructed in this User Manual, do not attempt to operate this product by yourself. Opening or removing covers may expose you to dangerous voltages and other hazards. Refer all servicing to licensed service personnel.
14. Unplug the Document Camera during thunderstorms or if it is not going to be used for an extended period. Do not place the Document Camera or remote control on top of heat-emitting equipment or heated objects such as a car, etc.
15. Unplug the Document Camera from the wall outlet and refer serving to licensed service personnel when the following situations happen:
    - If the power cable or plug becomes damaged or frayed.
    - If liquid is spilled into it or the Document Camera has been exposed to rain or water.

<Note> Using an incorrect battery type in the remote control may result in breakdown. Follow your country's instructions on how to dispose of used batteries.

■ Precautions

Warning: To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

This Document Camera has a 3-wire AC line Plug. This is a safety feature to ensure that the plug will fit into the power outlet. Do not try to disable this safety feature.

If the Document Camera will not be used for an extended time, unplug it from the power socket.

<table>
<tr><td colspan="4">
Note
Risk of Electric Shock
 </td></tr>
<tr><td colspan="4">Caution: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to licensed service Personnel.</td></tr>
<tr><td> </td><td>This symbol indicates that this equipment may contain dangerous voltage which could cause electric shock.</td><td> </td><td>This symbol indicates that there are important operating and maintenance instructions in this User’s Manual with this unit.</td></tr>
</table>

■ FCC Warning

This Document Camera has been tested and found to comply with the limits for a Class A or B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

■ EN55022 (CE Radiation) Warning

This product is intended for use in a commercial, industrial, or educational environment. It is not intended for residential use.

This is a Class A product. In a domestic environment it may cause radio interference, in which case the user may be required to take adequate measures. The typical use is in a conference room, meeting room or auditorium.

Chapter 2 Package Contents

PC190

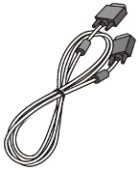
Quick Start Guide

(For download of other language versions, please visit Lumens website)

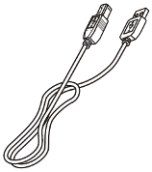
4-Step Card

Download and Safety Instruction

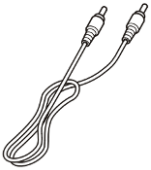
VGA Cable



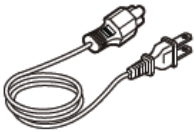
USB Cable



Audio Cable



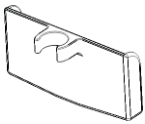
Power Cord



Appearance may vary depending on country/region

Remote Control

Remote Control Holder

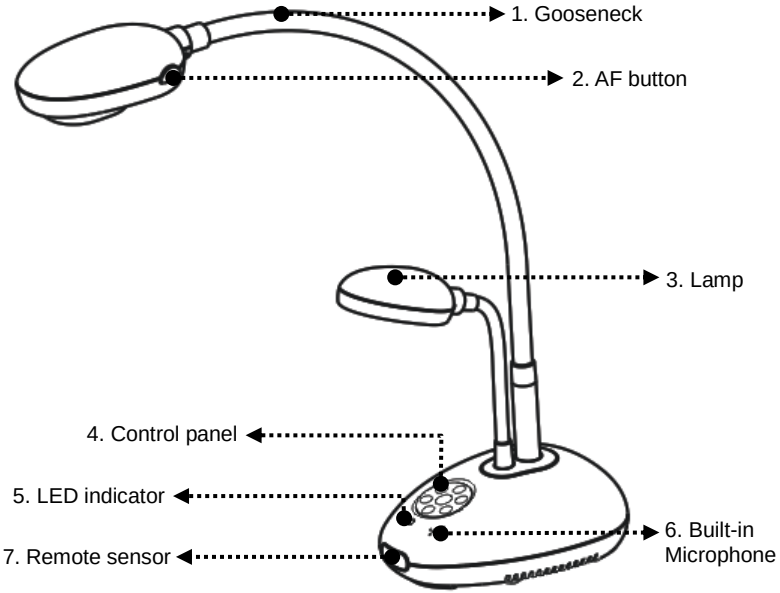


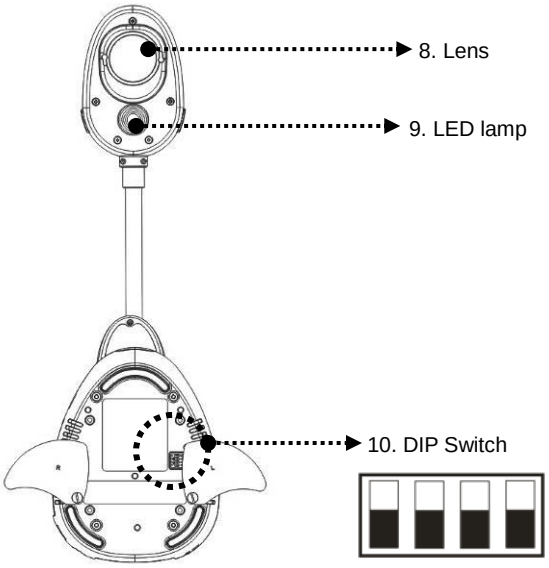
Microscope Adapter

Accessory Pouch

Pouch

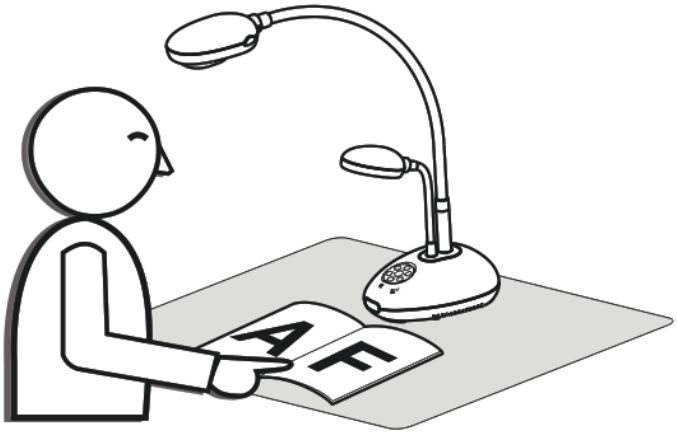
Chapter 3 Product Overview



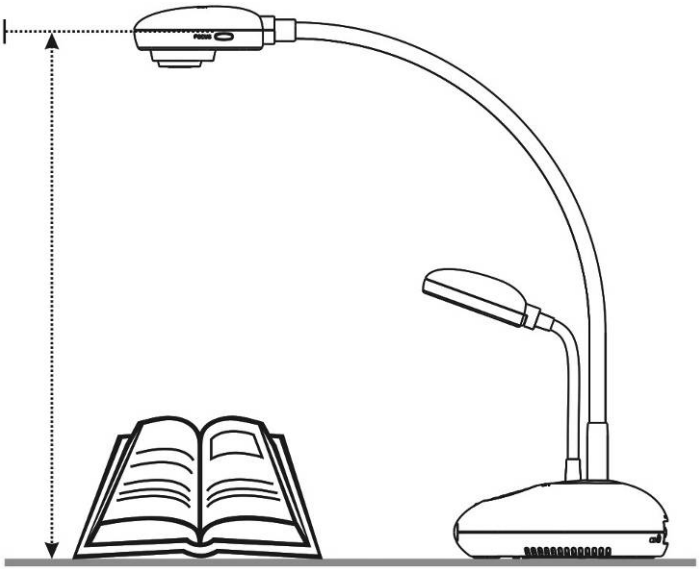


(Bottom)

3.1 Relative position of the presenter and document

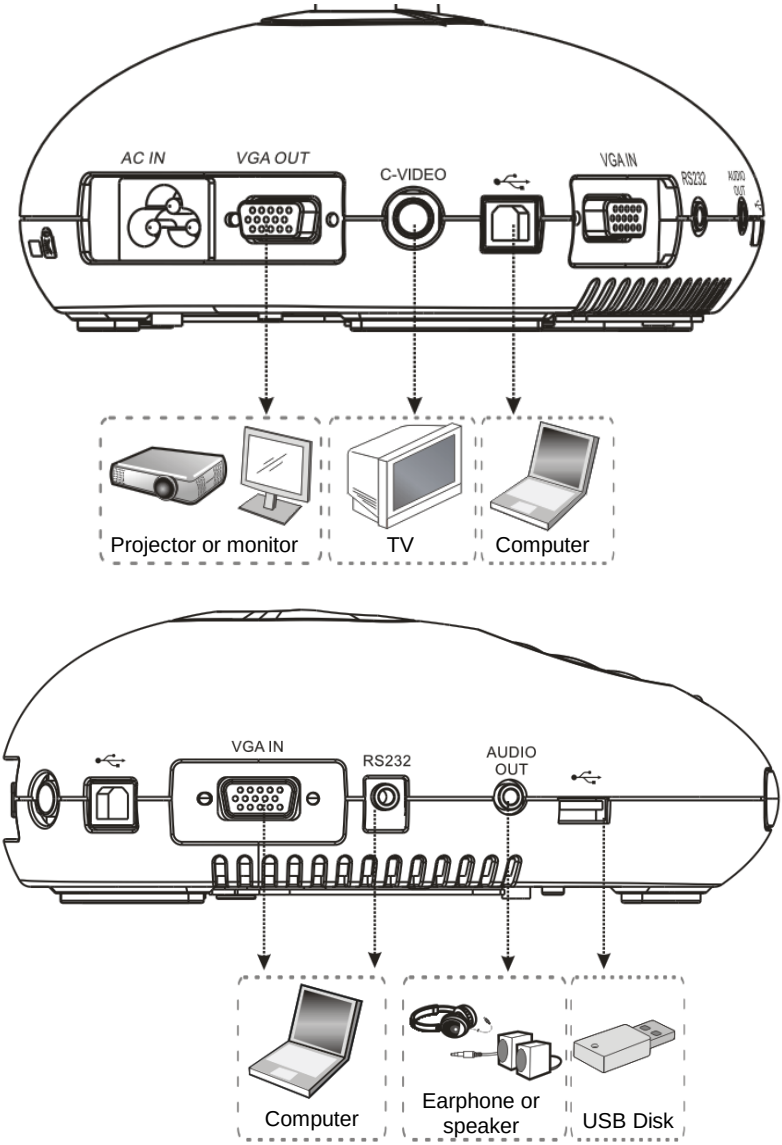


3.2 Recommended distance



Chapter 4 Installation and Connections

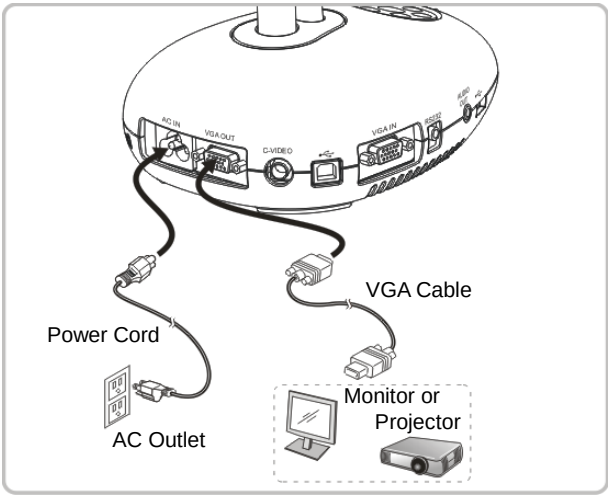
4.1 System diagram



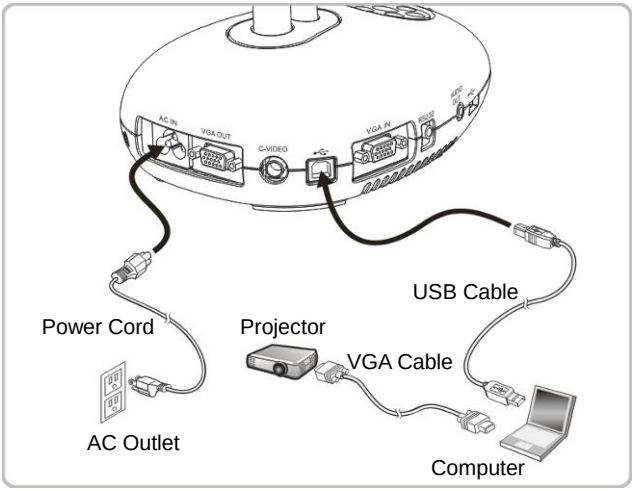
4.2 Installation and setup

1. Please set up the DIP Switch Settings first. Refer to **Chapter 9 DIP Switch Settings** in the PC190 User Manual.

4.3 Connecting to a projector or monitor

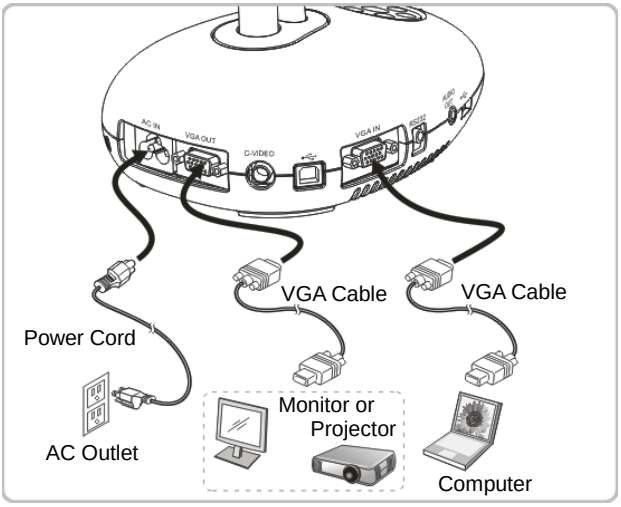


4.4 Connecting to a computer and use Podium View™ software



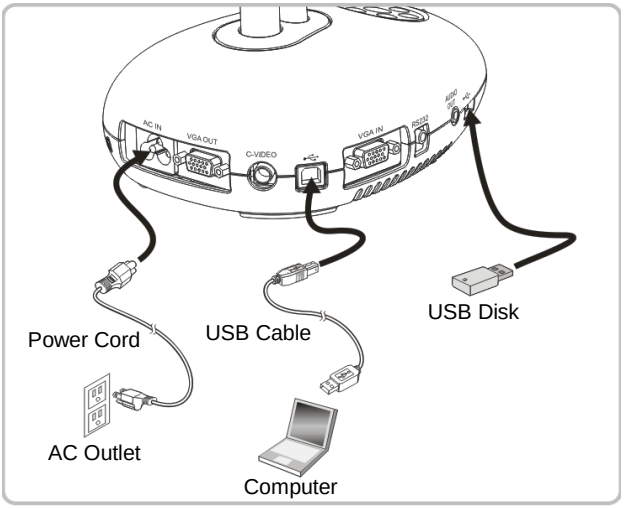
- Software can be downloaded from Lumens website.

4.5 Connecting to a computer and projector or monitor simultaneously

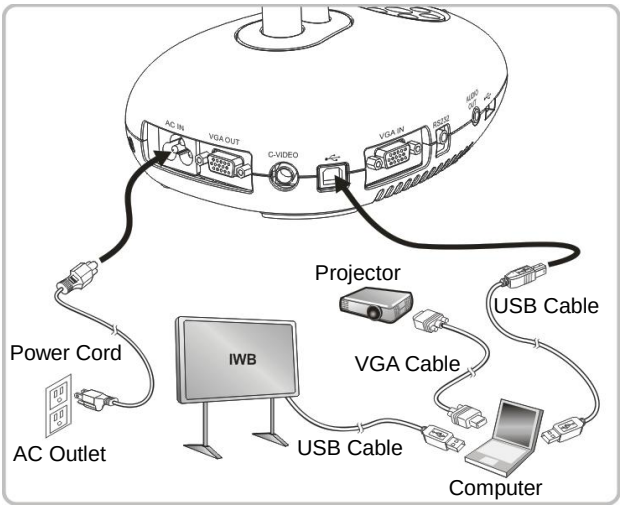


- Press [SOURCE] button to switch the image source.

4.6 Connecting to a computer and reading the USB Disk simultaneously

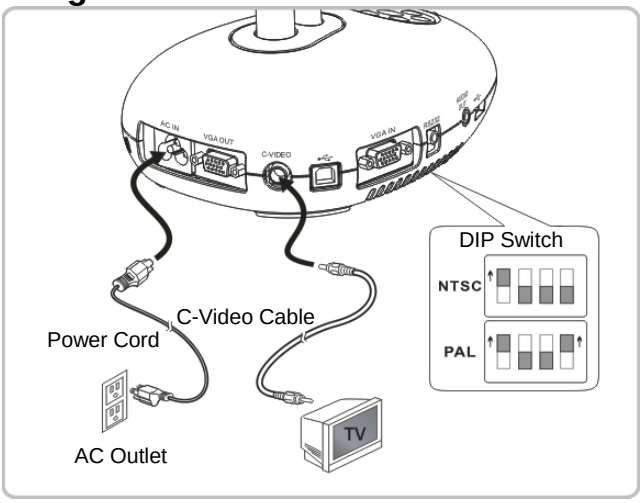


4.7 Connecting to an Interactive Whiteboard (IWB)



- It can be interoperated with major IWB models. The user manual can be downloaded from Lumens website.

4.8 Connecting to a TV

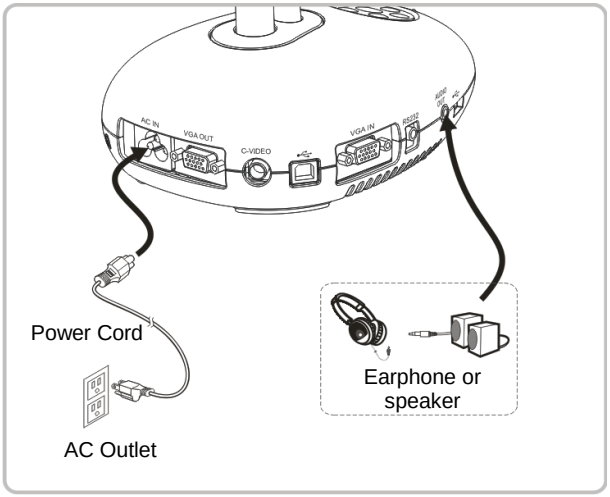


- NTSC: USA, Canada, Mexico, Panama, Chile, Japan, Taiwan, Korea, and Philippines
- PAL: Countries/regions not listed above.

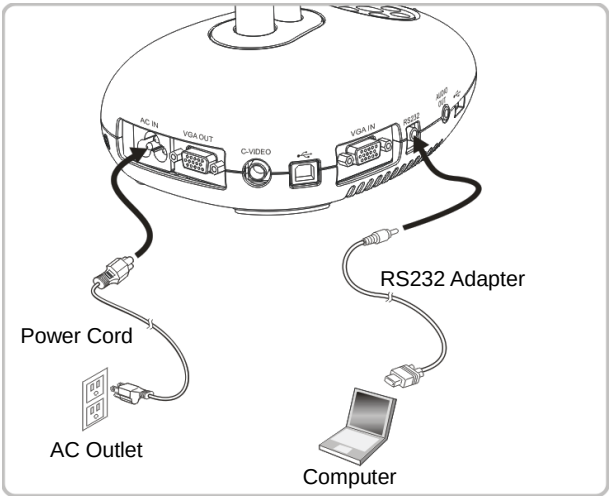
<Note> You should unplug and reconnect the power cord, and then restart the machine for DIP Switch Settings to take effect. Once C-VIDEO is on, VGA OUT is not supported.

<Note> Only the live image can be displayed in C-Video Out mode.

4.9 Connecting to a speaker



4.10 Connecting to a Computer with RS232



- After connecting to the RS232 cable, you can use RS232 commands to control PC190.

4.11 Installing application software

The application software installed on the computer enables you to:

- Control the PC190.
- Capture and record images.
- Annotate the image, highlight important details and save it.
- Support the full screen function.

<Note> Please refer to Podium View™ software user manual for installation steps and software operation.

Chapter 5 Start Using

1. Place an object to be displayed under the camera.
2. Turn on Power .
3. Adjust the gooseneck and lens to the appropriate positions.
4. Press [AUTO TUNE] button to optimize the image. You are ready to teach/present.

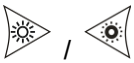
➢ Each time the lens is moved, locate the camera head and press [FOCUS] to refocus the lens

- When using the remote control, aim at the remote sensor on the PC190, and press the power button.
- Once PC190 is turned on, the LED on the control panel will flash a few times and stay lit. Please contact your distributor if the LED is not on.

Chapter 6 Control Panel/Remote Control and Setting Menu

6.1 Functions of control panel and remote control

<Remark> The below functions are listed alphabetically

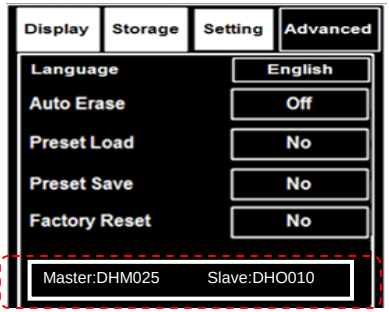
Name	Function Descriptions	Operation
	Turn on and off the Document Camera.	**Remote control/Control panel**
◄,►,▲,▼	Move up, down, left or right to select the needed function.	**Remote control/Control panel**
FOCUS	AF Button.	**Either sides of the lens**
AUTO TUNE	Automatically adjust the image to have the best brightness and focusing performance.	**Remote Control**
BRT+/- 	Manually adjust the brightness of the image.	**Remote Control**
CAPTURE	Capture images to the USB disk (priority) or internal memory.	**Remote control/Control panel**
DELETE	Delete images from the USB disk (priority) or internal memory.	**Remote Control**
ENTER	Enter/Activate functions.	**Remote control/Control panel**
FREEZE	Freeze the current image to temporarily stay on the screen. Press again to defreeze.	**Remote Control**
MASK	Enter Mask/Spotlight mode.	**Remote Control**
MENU	Activate the setting menu/exits the menu.	**Remote control/Control panel**
PAN	Enable/Disable the Partial Enlarged mode.	**Remote Control**

PIP	Image comparison (compares live images with captured image files).	**Remote Control**
PLAYBACK	Read files stored in the USB disk (priority) or internal memory.	**Remote control/Control panel**
RECORD	Record motion images. Press [Record] to record images to USB disk (priority) or internal memory, and then press [Record] again to stop recording.	**Remote Control**
SLIDE SHOW	Show the photos or videos stored in the USB disk (priority) or internal memory in Slide mode.	**Remote Control**
SOURCE	Switch between different sources of signals: 1. Live images (default). 2. Computer. **<Remark> This button is disabled in C-VIDEO Out mode.**	**Remote control/Control panel**
ZOOM +/-	Increase or decrease the image size.	**Remote control/Control panel**

6.2 Setting Menu

6.2.1 Version query:

1. Press **[Menu]** on the **remote control** or **control panel** to enter the **setting menu**.
2. Press [►] or [◄] to enter the [Advanced] menu.



6.2.2 Setting menu

<Remark> Press **[Menu]** on the **remote control** or **control panel** to enter the **setting menu**; The **bold underlined** values in the following table are defaults.

1st Level Major Items	2nd Level Minor Items	3rd Level Adjustment Values	Function Descriptions
Display	**Auto Tune**	**Activate**	Automatically adjust the image to have the best brightness and focusing performance.
	Lamp	1. **Off** 2. Arm lamp 3. Both Lamps 4. Head lamp	Use the left and right arrow keys to switch the lamp. **<Remark> When it is set to Both Lamps, both Arm lamp and Head lamp are turned on.**
	Rotate	**0°** / 90° / 180° / 270°	Use the left and right arrow keys to select the rotation angle.
	Focus	0~**A**~Max	Use the left and right arrow keys to adjust focal length on an object.
	Brightness	0~**A**~Max	Use the left and right arrow keys to adjust the brightness.
	Mode	**Normal**/Slide/Film/Microscope	Use the left and right arrow keys to select the image mode.
	Photo/Text	**Photo**/Text/Gray	Use the left and right arrow keys to select the photo/text/gray mode.
	Night Vision	On/**Off**	Use the left and right arrow keys to select. The night vision mode suits with darker environment.
	Digital Zoom	On/**Off**	Use the left and right arrow keys to turn on/off **digital zoom**.

Storage	**Slide Show**	**Activate**	Show the photos or videos stored in the USB disk (priority) or internal memory in Slide mode.
	Delay	1. 0.5 Sec 2. **1 Sec** 3. 3 Sec 4. 5 Sec 5. 10 Sec 6. Manual	Use the left and right arrow keys to select the delay time. Select manual mode to switch images manually.
	Image Quality	1. High 2. **Medium** 3. Low	Use the left and right arrow keys to select the image quality for the captured images and recorded videos.
	Copy To USB Disk	Yes/**No**	Use the left and right arrow keys to select, and then press [ENTER] to confirm to copy files from internal memory to USB disk.
	Delete All	Yes/**No**	Use the left and right arrow keys to select, press [ENTER] to confirm the deletion of all images from the USB disk (priority) or internal memory.
	Format	Yes/**No**	Use the left and right arrow keys to select, and then press [ENTER] to format the USB disk (priority) or internal memory.
Setting	**Capture**	1. **Single** 2. Continuous shooting 3. Disable	Use the left and right arrow keys to select the capture mode. (Single/Continuous/Disable)
	Capture Time	1. **1 hr** 2. 2 hr 3. 4 hr 4. 8 hr 5. 24 hr 6. 48 hr 7. 72 hr	Use the left and right arrow keys to select the capture time. **<Note> It only works when the capture mode is set to [continuous]**
	Capture Interval	1. **5 Sec** 2. 10 Sec 3. 30 Sec 4. 1 Min. 5. 2 Min. 6. 5 Min.	Use the left and right arrow keys to select the capture interval. **<Note> It only works when the capture mode is set to [continuous]**
	Auto Exposure	On/**Off**	Regardless of outside environment, the machine will adjust the brightness to the optimal condition. Use the left and right arrow keys to select.
	Auto White Balance	**Activate**	Regardless of outside light or color, the machine will adjust the color to the optimal condition; Press [ENTER] to activate.
	Volume	0~**A**~Max	Use the left and right arrow keys to adjust the volume.

	Projector Type	DLP/**LCD**	Use the left and right arrow keys to select the projector type and reduce image noise.
Advanced	**Language**	1. **English** 2. 繁體中文 3. Deutsch 4. Français 5. Español 6. Русский 7. Nederlands 8. Suomi 9. Polski 10. Italiano 11. Português 12. Svenska 13. ČESKY 14. 简体中文	English Traditional Chinese German French Spanish Russian Dutch Finnish Polish Italian Portuguese Swedish Czech Simplified Chinese Use the left and right arrow keys in the Language option to select the preferred language.
	Lock Down	On/**Off**	Use the left and right arrow keys to turn on/off the lock down function. You can set the password when [On] is selected.
	Auto Erase	On/**Off**	Use the left and right arrow keys to enable/disable Auto Erase. When [On] is selected, the stored images will automatically be deleted when the system is turned off.
	Preset Load	Yes/**No**	Read the value of the current image mode. Use the left and right arrow keys to select, and then confirm by pressing [ENTER].
	Preset Save	Yes/**No**	Read the value of the current image mode. Use the left and right arrow keys to select, and then confirm by pressing [ENTER].
	Factory Reset	Yes/**No**	Use the left and right arrow keys to select, and then confirm by pressing [ENTER] to restore the factory defaults.

6.2.3 MASK Mode Setting Menu

2nd Level Major Items	3rd Level Minor Items	4th Level Adjustment Values	Function Descriptions
MASK Mode	**Transparency**	0~**4**~6	Adjust the transparency of the mask using left and right arrow keys.
	Step	Large/**Medium**/Small	Select the step distance of the mask using left and right arrow keys.
	V Size	0~**A**~Max	Adjust the vertical height of the mask using left and right arrow keys.
	H Size	0~**A**~Max	Adjust the horizontal length of the mask using left and right arrow keys.
	Spotlight	**Activate**	Press [ENTER] to enter the Spotlight mode.

6.2.4 Spotlight Mode Setting Menu

2nd Level Major Items	3rd Level Minor Items	4th Level Adjustment Values	Function Descriptions
Spotlight Mode	**Transparency**	0~**4**~6	Adjust the transparency of the border in the Spotlight mode using left and right arrow keys.
	Step	Large/**Medium**/Small	Select the step distance of the spotlight zone using left and right arrow keys.
	V Size	0~**A**~Max	Adjust the height of the spotlight zone using left and right arrow keys.
	H Size	0~**A**~Max	Adjust the width of the spotlight zone using left and right arrow keys.
	Live	**Activate**	Press [ENTER] to return to live image.

6.2.5 Annotation Tools (Annotation)

After the mouse is connected, right click the mouse to open the tools.
< Note> When the setting menu is activated, the tools cannot be used.

- **Icon of Annotation**

- **Main Menu**

- **Free-hand Drawing Tool menu**

Icon	Description
/	Expand/Collapse the Annotation menu
	Open/Close the Free-hand Drawing Tool menu
	Select the line width
	Select pen color
	Clear all
	Free-hand drawing tool
	Draw a line
	Draw a rectangle
	Draw a polygon
	Draw an ellipse
	Eraser (Clear marks of free-hand drawing tool)

Chapter 7 Descriptions of major functions

7.1 I would like to automatically adjust the image to have the best brightness and focusing performance

Remote control:

1. Press [AUTO TUNE] for the optimal brightness and focal length.

Control panel:

1. Press [MENU] to enter the setting menu.
2. Press [►] or [◄] to select [Display].
3. Press [▼] to select [Auto Adjust].
4. Press [ENTER].

7.2 I would like to switch image sources

The default of image source is **Live Image**. Press [SOURCE] on the **remote control** or [ENTER]

on the **control panel** for PC190 to switch among the following modes in turn:

1. Live images (default).
2. Computer.

7.3 I would like to make text clearer and photos more colorful

7.3.1 Photo/Text mode descriptions

The default [Photo/Text] mode is in Photo **(Photo mode)**. To change this setting, please use the **remote control** or the **control panel** to enter the Options of the Setting Menu.

- [Photo] (default): for viewing photos or text with photos, making photos more colorful.
- [Text]: for viewing text files, making the text clearer.
- [Gray]: for viewing black & white photos which will make the grayscale differentiation distinct.

7.3.2 Setting Photo/Text mode

To change the settings, please use the **remote control** or the **control panel**:

1. Press [MENU] to enter the setting menu.
2. Press [►] or [◄] to select [Display].

3. Press [▼] to select [Photo/Text]. (Please refer to **7.3.1 Photo/Text mode descriptions** to make the best choice.)
4. Press [►] or [◄] to select the [Photo/Text/Gray].
5. Press [MENU] to exit.

7.4 I would like to zoom in/out images

1. Press [ZOOM+] on the **remote control** or **control panel** to zoom in images.
2. Press [ZOOM-] on the **remote control** or **control panel** to zoom out images.

7.5 I would like to use the auto focus

1. Press the [FOCUS] AF button on the right side of the lens.

7.6 I would like to adjust the focal length

Use the **remote control** or **control panel**:

1. Press [MENU] to enter the setting menu.
2. Press [►] or [◄] to select [Display].
3. Press [▼] to select [Focus].
4. Press [►] or [◄] to adjust.
5. Press [MENU] to exit.

7.7 I would like to adjust the brightness

Remote control:

1. Press [BRT +] to make it brighter.
2. Press [BRT -] to make it darker.

Control panel:

1. Press [MENU] to enter the setting menu.
2. Press [►] or [◄] to select [Display].
3. Press [▼] to the [Brightness].
4. Press [►] or [◄] to adjust the brightness.
5. Press [MENU] to exit.

7.8 I would like to turn on/off the lamp

The default of the lamp is **OFF**. When using the **remote control** or **control panel**:

1. Press [MENU] to enter the setting menu.
2. Press [►] or [◄] to select [Display].
3. Press [▼] to the [Lamp].
4. Press [►] or [◄] to select [Off/Arm lamp/Both Lamps/Head lamp].
5. Press [MENU] to exit.

7.9 I would like to freeze images

1. Press [FREEZE] on the **remote control** to freeze the current image on the screen. Press again to defreeze.

7.10 I would like to capture images

7.10.1 Capturing and saving images

1. Press [CAPTURE] on the **remote control** or **control panel** to capture and save images.

- **You cannot capture images when the capture mode is set to [Disable]. If it is set to [Continuous], you can capture images continuously. Press [Capture] to start capturing continuously, or press [Capture] again to exit.**
- To change the quality of captured images, please refer to 7.10.2 Setting the quality of captured images.
- To change the settings of captured images, please refer to 7.10.3 Setting continuous capture.

7.10.2 Setting the quality of captured images

1. Press [Menu] on the **remote control** or **control panel** to enter the setting menu.
2. Press [►] or [◄] to the [Storage] menu.
3. Press [▼] to find [Image Quality].
4. Press [►] or [◄] to select among [High/Medium/Low].
5. Press [Menu] to exit.

7.10.3 Setting continuous capture

1. Press [MENU] on the **remote control** or **control panel** to enter the setting menu.
2. Press [►] or [◄] to the [Setting] menu.
3. Press [▼] to find [Capture].
4. Press [►] or [◄] to select [continuous].
5. Press [▼] to find [Capture Time]; Press [►] or [◄] to set capture time.
6. Press [▼] to find [Capture Interval]; Press [►] or [◄] to set interval time.
7. Press [MENU] to exit.

7.11 I would like to record videos

7.11.1 Recording motion images

<Remark> You may not be able to capture or record images when [Capture] mode is set to [Disable].

1. Press [RECORD] on the **remote control** to start recording videos.
2. Record sounds with the built-in microphone of the control panel.
3. Press [RECORD] again to stop recording.

7.11.2 Setting the quality of captured images

1. Press [Menu] on the **remote control** or **control panel** to enter the setting menu.
2. Press [►] or [◄] to the [Storage] menu.
3. Press [▼] to find [Image Quality].
4. Press [►] or [◄] to select among [High/Medium/Low].
5. Press [Menu] to exit.

7.11.3 Playing videos

- **For playing videos, please refer to 7.12 I would like to view captured/recorded images.**

7.12 I would like to view captured/recorded images

1. Press [PLAYBACK] on the **remote control** or **control panel** to display thumbnails of all stored files.
2. Press [▶] or [◀] or [▲] or [▼] to select the thumbnail you want to play.
3. Press [ENTER] for full-screen play.
4. Press [▶] or [◀] to select different video and audio files.
5. Press [▲] or [▼] to adjust the volume of the video.
6. Press [MENU] to exit.

<Note> An external speaker must be connected to AUDIO OUT to play sound.

7.13 I would like to delete the captured/recorded images

Remote control:

1. Press [PLAYBACK] to show the thumbnails of all stored files.
2. Press [▲] or [▼] or [◀] or [▶] to select the file you want to delete.
3. Pressing [DELETE] will open a [Delete File] window.
4. Press [▶] or [◀] to select [Yes].
5. Press [ENTER] to delete the selected file.
6. Press [MENU] to exit.

7.14 I would like to automatically delete the stored images whenever it is turned off (Auto Erase)

Use the remote control or control panel:

1. Press [MENU] to enter the setting menu.
2. Press [▶] or [◀] to the [Advance] menu.
3. Press [▲] or [▼] to [Auto Erase].
4. Press [▶] or [◀] to select [On].
5. Press [MENU] to exit.

7.15 I would like to enlarge a part of the image (PAN)

Use **Remote control**:

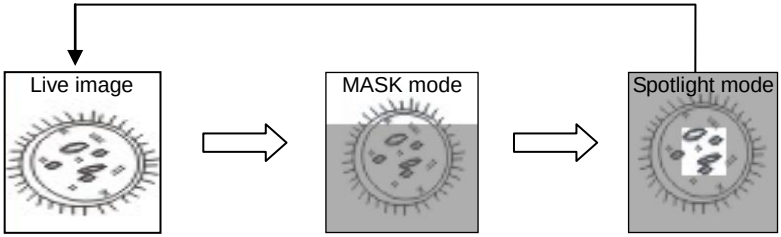
1. Press [PAN] to enter the Partial Enlarged mode.
2. Press [▲] or [▼] or [◄] or [►] to move and view the partial enlarged images.
3. Press [PAN] to exit the partial enlarged mode.

7.16 I would like to use the MASK and Spotlight function

7.16.1 I would like to use the MASK or Spotlight mode

Use **Remote control**:

1. Press [MASK] to enter the Mask mode, and press [▲] or [▼] or [◄] or [►] to move the mask position.
2. Press [MASK] again to enter the Spotlight mode, and press [▲] or [▼] or [◄] or [►] to move the zone position.
3. Press [MASK] again to exit and return to the live image screen.



7.16.2 I would like to set the size of Mask/Spotlight function

In Mask/Spotlight mode, use the **remote control**:

1. Press [MENU] to enter the image OSD menu.
2. Press [▲] or [▼] to select the item to be modified [Transparency/Step/V Size/H Size]. **(For details, please refer to 6.2 Setting Menu.)**
3. Press [►] or [◄] to perform the modification.
4. Press [MENU] to exit the image OSD menu and return to the Mask mode.

7.17 I would like to play the slides (Slide Show)

7.17.1 Setting delay time

1. Press [MENU] on the **remote control** or **control panel** to enter the setting menu.
2. Press [►] or [◄] to the [Storage] menu.
3. Press [▼] to find [Delay].
4. Press [►] or [◄] to select image switch mode between [0.5 Sec/1 Sec/3 Sec/5 Sec/10 Sec/Manual].
5. Press [MENU] to exit.

7.17.2 Activating/Pausing/Stopping the slide show

<Note> Upper Limit: The maximum size of single photo is 7 MB.

Remote control:

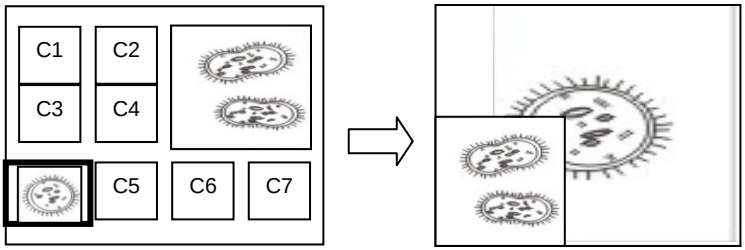
1. Press [SLIDE SHOW] to start playing.
2. Press [ENTER] to pause playing.
3. Press [ENTER] again to continue playing.
4. Press [SLIDE SHOW] again to stop playing.

Control panel:

1. Press [MENU] to enter the setting menu.
2. Press [►] or [◄] to the [Storage] menu.
3. Press [▼] to find [Slide Show].
4. Press [ENTER] to play.
5. Press [ENTER] to pause playing.
6. Press [ENTER] again to continue playing.
7. To stop playing, repeat Steps 1 and 4.

7.18 I would like to compare images (compare live images with stored images (PIP))

This function will compare and contrast a live image with a stored image.

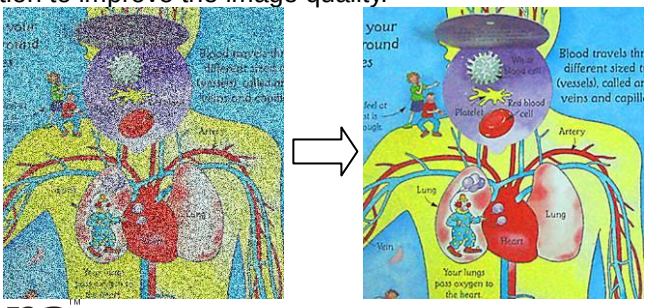


Remote control:

1. Press [PIP] to enter the photo selection screen.
2. Press [▲] or [▼] or [◄] or [►] to select the file to be compared.
3. Press [ENTER] to activate image comparison.
4. Press [▲] or [▼] or [◄] or [►] to move the live image.
5. Press [PLAYBACK] to return to image thumbnails and compare it with other images.
6. Press [MENU] to exit.

7.19 I would like to reduce the image noise (Projector Type)

1. This function enables Document Camera to automatically clear image noise. The noise is especially obvious when Document Camera is connected to a DLP projector. You can set the DLP projector to improve the image quality.
2. If there is special noise when VGA out is connected, please set DLP option to improve the image quality.



2.1 Press [MENU] on the **remote control** or **control panel** to enter the setting menu.
2.2 Press [►] or [◄] to the [Setting] menu.
2.3 Press [▼] to enter [Projector Type].
2.4 Press [►] or [◄] to select **[LCD/DLP]**.
2.5 Press [MENU] to exit.

7.20 I would like to resume the factory default settings (Factory Reset)

7.20.1 Using OSD menu

1. Press [MENU] on the **remote control** or **control panel** to enter the setting menu.
2. Press [►] or [◄] to select [Advance] menu.
3. Press [▼] to select [Factory Reset].
4. Press [►] or [◄] to select [Yes].
5. Press [ENTER] to activate.

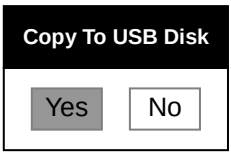
7.20.2 Use Compound Key

1. Use the **control panel**, and press **[ENTER] + [MENU]** simultaneously to restore the initial value.

<Note> Before using the compound keys, please remove all VGA-IN devices.

7.21 I would like to use a USB disk

1. Insert the USB disk and a [Copy To USB Disk] dialog box will appear, and you are asked whether to copy files from PC190 to the USB disk.
   - Press [►] or [◄] on the **remote control** or **control panel** to select.

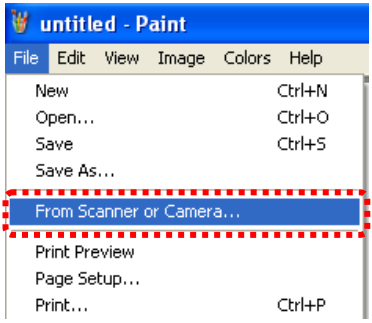


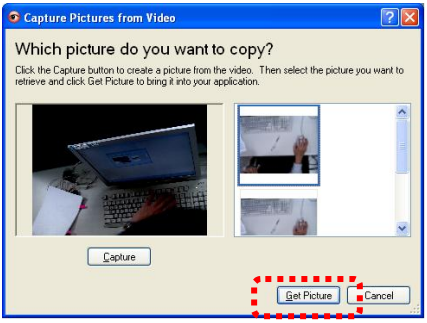
7.22 Computer-related functions

Ensure that the USB cable is connected and the drivers are installed before using the computer-related functions. Refer to **Chapter 4 Installation and Connections** in this User Manual.

7.22.1 I would like to insert a photo in MS-Paint

1. Click [File/From Scanner or Camera] in MS-Paint as shown in the bottom left figure.




Capture Pictures from Video
Which picture do you want to copy?
Click the Capture button to create a picture from the video. Then select the picture you want to retrieve and click Get Picture to bring it into your application.
Capture
Get Picture
Cancel

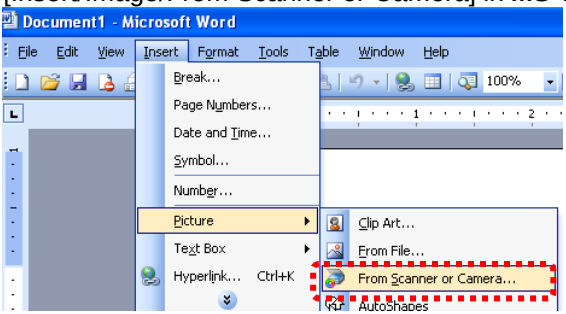
2. Click [Get Picture] will capture the photos of live images and insert the files in use shown as top right figure.

<Remark> Support Windows XP Operation System only.

7.22.2 I would like to insert a photo in MS-Word

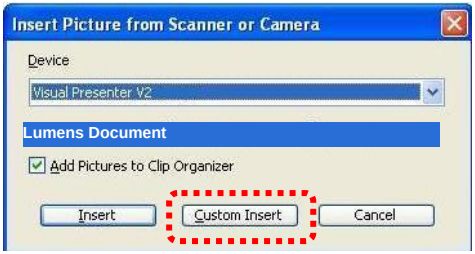
<Remark> For Windows Office 2003 or later versions, please use the function with OneNote.

1. Click [Insert/Image/From Scanner or Camera] in ***MS-Word***.

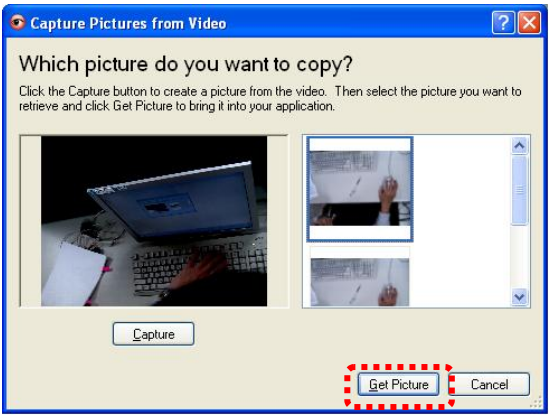


2. Select [Lumens Document] and click [Custom Insert].

<Remark> For Windows XP, please set by system name (USB video device)



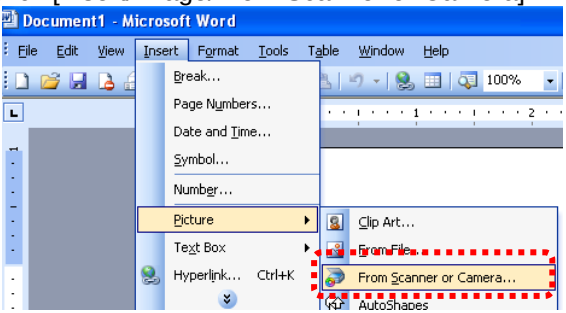
3. Click [Get Picture]. It will capture the photo of live image.


Capture Pictures from Video
Which picture do you want to copy?
Click the Capture button to create a picture from the video. Then select the picture you want to retrieve and click Get Picture to bring it into your application.
Capture
Get Picture
Cancel

7.22.3 I would like to change the setting of the PC190 and then capture a photo in MS-Word

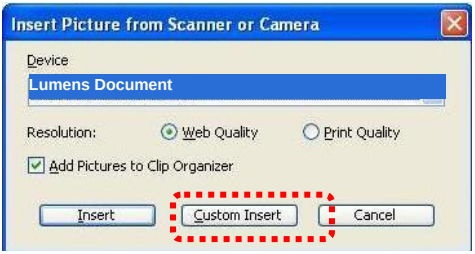
<Remark> For Windows Office 2003 or later versions, please use the function with OneNote.

1. Click [Insert/Image/From Scanner or Camera] in ***MS-Word***.

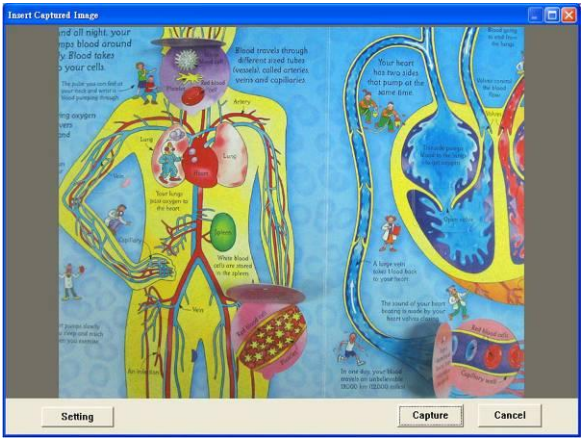


2. Select [Lumens Document] and click [Custom Insert].

<Remark> For Windows XP, please set by system name (USB video device)



3. A window showing a live image (see below) will be displayed.



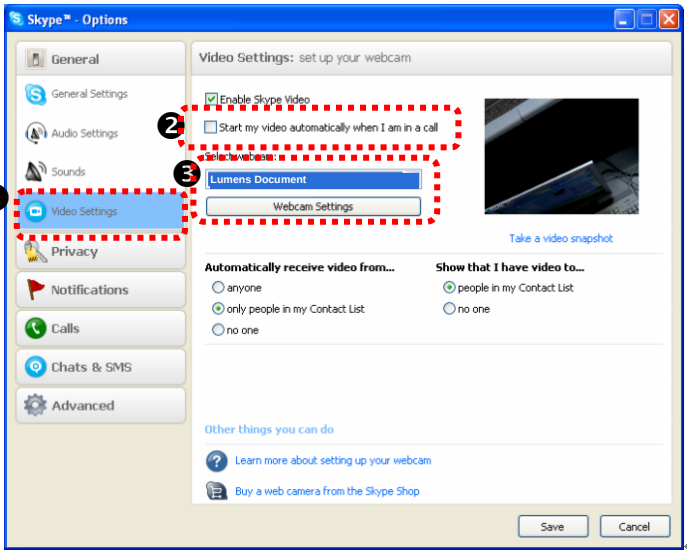
4. Press [Setting]: To control the PC190 via the Camera Settings interface. The operating procedure is the same with the remote control and control panel of the PC190. Refer to Chapter 6 Control Panel/Remote Control and Setting Menu.
5. Press [Capture] to capture images in *MS-Word*.
6. Press [Cancel] to exit.

7.22.4 I would like to set the PC190 as a webcam for Skype

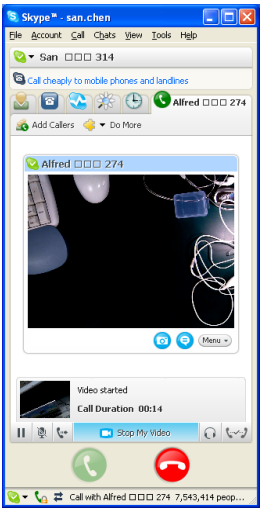
The PC190 can be used as a webcam for teleconferencing software such as ***Skype*** or ***MSN***. With ***Skype*** as an example, operating instructions are provided below:

1. Open ***Skype*** and enter [Tools] > [Options].
2. Select [Video Settings] > [webcam] > [Lumens Document] and check Start my video automatically when I am in a call, as shown below.

<Remark> For Windows XP, please set by system name (USB video device)



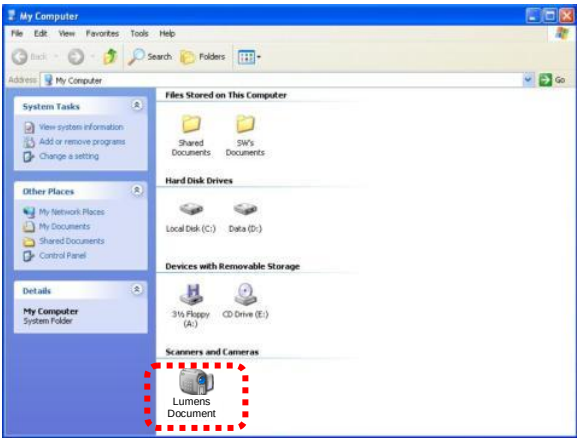
3. Start calling your contact. When both sides are connected, ***Skype*** will display the video screen.



7.22.5 I would like to set the PC190 as a PC Camera

<Remark> For Windows XP, please set by system name (USB video device)

Open [My Computer] and click [Lumens Document] to open a live image.



7.22.6 I would like to connect an Interactive Whiteboard

To connect an Interactive Whiteboard, go to Lumens website to download the reference guide for a specific brand (http://www.lumens.com.tw/goto.htm).

Chapter 8 Connecting to Microscope

1 Mount the **microscope adapter** onto the microscope
<Note> Please choose an appropriate microscope adapter. Microscope adapter accessories are applicable to eyepieces of Ø28 mm, Ø31 mm, Ø33 mm, and Ø34 mm.
2 The lens of PC190 connects with the **microscope adapter**

If the eyepiece is Ø33 mm or Ø34 mm, only one Lumens microscope adapter is needed.	**If the eyepiece is Ø28 mm or Ø31 mm, you need two microscope adapters. (1. The Lumens microscope adapter. 2. The microscope adapter suitable for the eyepiece size Ø28 mm or Ø31 mm.)**

3 **Select the** [**Microscope**] **mode**
3.1. When using the **control panel** or **remote control**
3.1.1. Press [MENU] to enter the setting menu.
3.1.2. Press [►] or [◄] to the [Display].
3.1.3. Press [▼] to select [Mode].
3.1.4. Press [►] or [◄] to the [Microscope].

4 If the image is not clear
4.1. Please adjust the focus of microscope.
4.2. Please press the [FOCUS] button on either side of the PC190 lens to activate the auto focus.

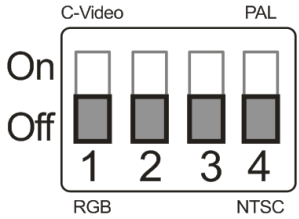
5 Digital Zoom
5.1. Press [MENU] to enter the setting menu.
5.2. Press [►] or [◄] to the [Display].
5.3. Press [▼] to select [Digital Zoom].
5.4. Press [►] or [◄] to the [On].

Chapter 9 DIP Switch

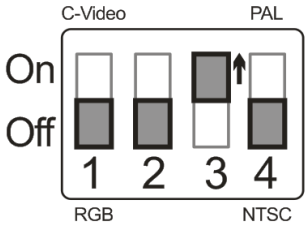
<Note> You should unplug and reconnect the power cord, and then restart the PC190 for all DIP Switch Settings to take effect.

9.1 Connecting to a projector or monitor

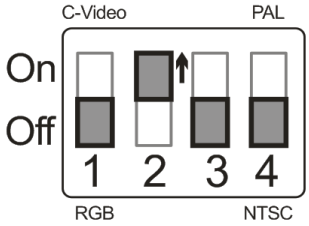
9.1.1 XGA output (default values):



9.1.2 SXGA output

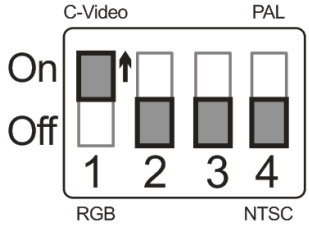


9.1.3 WXGA output

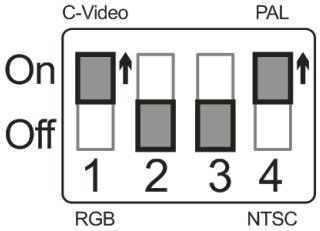


9.2 Connecting to a TV

9.2.1 NTSC: USA, Taiwan, Panama, Philippines, Canada, Chile, Japan, Korea, and Mexico



9.2.2 PAL: Countries/regions not listed above



<Remark> Once C-VIDEO is on, VGA OUT is not supported.

Chapter 10 Troubleshooting

This chapter describes problems you may encounter while using PC190. If you have questions, please refer to related chapters and follow all the suggested solutions. If the problem still occurred, please contact our distributors or service center..

No.	Problems	Solutions
1	**Boot without power signal**	Make sure you have plugged in the power cord.
2	**There is no image output from PC190**	1. Check the power. 2. Check all cable connections. Refer to **Chapter 4 Installation and Connections** in this manual. 3. Check the [Source], refer to **7.2 I would like to switch image sources of Chapter 7 Descriptions of major functions**. 4. Check the settings for the source of the projector. For the appropriate input selection of the projector, refer to the projectors user manual. 5. Check if DIP Switch is properly set. Refer to **Chapter 9 DIP Switch Settings** for related settings.
3	**Unable to focus**	Probably the document is too close. Press [ZOOM -] on the **remote control** or **control panel**. Or pull away the lens from the document to increase the distance, and then press the [FOCUS] button on the right side of the lens.
4	**The image is incomplete**	Check the Auto Image setting of your projector. Please refer to the user manual of the projector or check for the DIP SWITCH settings.
5	**Lumens Document, Podium View™ and other applications cannot be used simultaneously**	**Lumens Document**, **Podium View™** and other applications cannot be executed simultaneously. Only one application can be executed at a time. Please close the currently running applications and then execute the application to be used.
6	**When the unit is turned on, the auxiliary floodlight do not light.**	Please make sure the arm lamp is set to “OFF”. For the switch-on or -off of arm lamp, please refer to **7.8 I would like to turn on/off the lamp (LAMP) of Chapter 7 Descriptions of major functions**.
7	**PC190 fails to store images or**	1. Check to see if the stored data have reached the maximum size of the USB device (priority) or

	react.	internal memory. 2. Please make sure if the Capture function is set to Continuous mode or the time for capture is set to be long. For the related setting, refer to **7.10 I would like to capture images of Chapter 7 Descriptions of major functions**.
8	**The images outputted from PC190 are too bright, dark or vague.**	Press [AUTO TUNE] to automatically adjust to the optimal brightness and focal length.
9	**Unable to record images**	1. Check to see if the stored data have reached the maximum size of the USB disk (priority) or internal memory. 2. Please confirm the rotation angle. You may not able to record when the image is rotated by 90°/270°.
10	**The operating steps in the manual are not applicable to the machine.**	Due to functional upgrade, machine operation sometimes differs from the instructions in the manual. Please check if your machine's Firmware is the latest version. 1 Please visit Lumens website to check whether the latest version is available for download. http://www.lumens.com.tw 2 To verify Firmware version, please refer to **6.2.1 Version query of Chapter 6 Control Panel/Remote Control and Setting Menu** 3 If you still do not know whether it is the latest version, please consult your distributor. http://www.lumens.com.tw/tw/support-cf.asp
11	**How to release the locked machine**	1. Press [Menu] on **Remote Control** or **Control Panel** to enter the setting menu. 2. Press [►] or [◄] to enter the [Advanced] menu. 3. Press [▼] to [Lock Down]. 4 Press [►] or [◄] to choose [Off], and cancel the function of setting power-on password.